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21 September 1954

25X1

MEMORANDUM FOR: THE RECORD

SUBJECT: Trip of [redacted]  
15 - 17 September 1954

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1. Purpose of Trip:

The purpose of the trip was to conduct range tests on the AN/PAR-1 and AN/PAC-1 infra red communication equipments and to evaluate the Standard Piezo IRS Phosphor.

2. Results of Tests:

The AN/PAC-1 was tested with the following results ground to ground:

<u>Range (yds)</u>	<u>Quality of Signal</u>
1200	good strength and quality
2300	weak and unreadable
2800	no detectable signal

Tripods were used for supporting the equipments at both stations. Alignment was accomplished with the AM viewers provided at 1200 and 2300 yds. At 2800 yds the equipment was aligned on a visible light since the viewer was almost unusable.

The AN/PAC-1 was also tested boat to shore using a tripod on shore and no tripod (shoulder held equipment) on the boat.

<u>Range (yds)</u>	<u>Quality of Signal</u>
400	good quality - some interruption of communication due to motion of boat
1500	good quality signal when received. Communication impossible because of motion of boat.

During the boat tests the boat was held at a fixed position but not a fixed heading. Roll on the boat was negligible. Difficulty was had in maintaining alignment when transmitting since there is then no sighting target for the operator. Aiming was impeded by the poor quality of the viewers.

The AN/PAR-1 was tested only at 2800 yards. No signal was received.

No tests were conducted on the IRS Phosphor due to lack of time.

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3. Other Activities:

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a. The evening of 15 September was spent by [redacted] assisting in the I. R. portion of the TSS Devices Course.

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c. The morning of 17 September was spent by [redacted] in the final critique of the TSS Devices Course.

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[redacted]

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It was found that some trouble was being experienced with "B" battery failure in the Locator. Shortly after turning on the locator detector the audio tone started to fail in volume. In a few minutes increase of the setting of the amplitude control was insufficient to offset this failure and the detector ceased to operate. Replacing the 67½ volt batteries with newly manufactured batteries corrected the difficulty. It is obvious that battery voltage must be checked under load.

[redacted]

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TSS/APD

Distribution:

Orig. - P-101B

1 - P-53

1 - [redacted]

1 - Chrono

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AST/bb

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